

Claims

1. A substantially purified tumor necrosis factor (TNF) inhibitor which is active against TNF.
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2. The TNF inhibitor of claim 1 wherein said TNF inhibitor is a glycoprotein having a molecular weight of about 30kDa.
- 10 3. The TNF inhibitor of claim 2 wherein said TNF inhibitor is deglycosylated and has a molecular weight of about 18kDa.
- 15 4. The TNF inhibitor of claim 3 wherein said TNF inhibitor is produced by recombinant-DNA methods.
- 20 5. The TNF inhibitor of claim 1 wherein said TNF inhibitor is a glycoprotein having a molecular weight of about 40kDa.
6. The TNF inhibitor of claim 5 wherein said TNF inhibitor is active against both TNF alpha and TNF beta.
- 25 7. The TNF inhibitor of claim 6 wherein said TNF inhibitor is deglycosylated.
8. The TNF inhibitor of claim 2 wherein said TNF inhibitor has the amino acid sequence as shown in Figure 19.
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9. The TNF inhibitor of claim 5 wherein said TNF inhibitor has the amino acid sequence as shown in Figure 38.
- 35 10. The TNF inhibitor of claim 5 wherein said TNF inhibitor is 40kDa TNF inhibitor Δ 51.

11. The TNF inhibitor of claim 5 wherein said TNF inhibitor is 40kDa TNF inhibitor *¶ 53.*

5 12. A recombinant-DNA method for the production of a TNF inhibitor comprising:

(a) preparation of a DNA sequence capable of directing a host cell to produce a protein having TNF inhibitor activities;

10 (b) cloning the DNA sequence into a vector capable of being transferred into and replicated in a whole cell, such vector containing operational elements needed to express the DNA sequence;

15 (c) transferring the vector containing the synthetic DNA sequence and operational elements into a host capable of expressing the DNA encoding the TNF inhibitor;

20 (d) culturing the host cells under conditions appropriate for amplification of the vector and expression of the inhibitor;

(e) harvesting the inhibitor; and

25 (f) permitting the inhibitor to assume an active tertiary structure whereby it possesses TNF inhibitory activity.

13. The method of claim 12 wherein said TNF inhibitor is 30kDa TNF inhibitor.

30 14. The method of claim 12 wherein said TNF inhibitor is 40kDa TNF inhibitor.

15. The method of claim 14 wherein said TNF inhibitor is 40kDa TNF inhibitor *¶ 51.*

35 16. The method of claim 14 wherein said TNF inhibitor is 40kDa TNF inhibitor *¶ 53.*

17. A gene encoding for tumor necrosis factor (TNF)

inhibitor.

18. The gene of claim 17 wherein said TNF inhibitor is 30kDa TNF inhibitor.

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19. The gene of claim 17 wherein said TNF inhibitor is mature 40kDa TNF inhibitor.

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20. The gene of claim 17 wherein said TNF inhibitor is 40kDa TNF inhibitor. 51.

21. The gene of claim 17 wherein said TNF inhibitor is 40kDa TNF inhibitor. 53.

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